

# THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

The Official Organ of  
**THE INTERNATIONAL COMMISSION ON  
ZOOLOGICAL NOMENCLATURE**

*Edited by*

**FRANCIS HEMMING, C.M.G., C.B.E.**

**Secretary to the International Commission**

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IMPERIAL BUREAU  
OF  
AGRICULTURAL PARASITOLOGY  
(HELMINTHOLOGY.)

# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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## PUBLICATION OF PROPOSALS SUBMITTED TO THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature).

(Commission's reference Z.N.(G.)17.)

The present Part of the *Bulletin* contains the first instalment of the texts of proposals submitted to the International Commission on Zoological Nomenclature for decision. The remaining cases will be published as soon as possible. For convenience of reference, proposals relating to the International Code of Zoological Nomenclature are given first. These will be followed by the remaining cases arranged, so far as possible, according to the date on which they were received by the Commission.

The publication of these cases will place before the zoological public the whole of the present Agenda of the International Commission and will enable specialists readily to ascertain what are the proposals under consideration by the Commission. It will also provide an opportunity to specialists to furnish to the Commission statements of their views on any of the proposals before a decision is taken by the Commission thereon. As soon as possible after being received, comments so furnished will be published in the *Bulletin*.

In the case of *Members of the Commission*, the publication in the *Bulletin* of proposals submitted to the Commission will provide the material on the basis of which they will later be asked to vote on the *Opinions* to be rendered by the Commission on the cases in question.

*Reference Numbers*: The Reference Number appropriate to each case is given at the head of each paper published and specialists communicating with the Secretary to the Commission are particularly asked to quote the Reference Number concerned, since by so doing they will materially lighten the work of the Secretariat of the Commission.

*Comments on proposals* submitted to the Commission should be written in English or French on one side of the paper only. Attention should be paid to the "Instructions to Authors" which were issued by the International Commission in May 1943 and which are reprinted on the following page. Where a specialist desires to comment on more than one case, a separate note should be furnished for each case.

All comments on proposals published in the *Bulletin* should be addressed to the Secretary to the International Commission at 83, Fellows Road (Garden Flat), London, N.W.3.

## INSTRUCTIONS TO AUTHORS LAID DOWN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE IN MAY 1943

The International Commission on Zoological Nomenclature has been criticised at times for the delays that have occurred in the consideration of particular cases. In part these delays have been due to faults in the organisation and procedure of the Commission and, in so far as this has been the case, steps have been, and are being, taken to prevent their recurrence. To a considerable extent, however, these delays have been due to the incomplete and inaccurate way in which proposals have been submitted to the Commission for consideration.

2. Zoologists are accordingly invited to co-operate with the Commission by complying strictly with the following instructions when submitting proposals for the consideration of the Commission and in consequence when submitting papers for publication in the *Bulletin*. By doing so zoologists will:—

- (a) avoid unnecessary delays in securing decisions on questions submitted; and
- (b) reduce to a minimum the expenditure incurred by the Commission in dealing with applications submitted.

3. The instructions in question are the following:—

- (1) Proposals should be in the form of papers and should not be raised incidentally in course of correspondence; these papers should be as short and concise as is consistent with the clear presentation of the problem to be considered.
- (2) Wherever possible papers should be typewritten and, whether typewritten or in manuscript, should be on one side of the paper only.
- (3) The printing of papers in foreign languages adds greatly to their cost. For so long therefore as the present financial difficulties of the Commission persist, zoologists are asked to submit all manuscripts in English.
- (4) Each application should be confined to a single subject except where the status of two or more names forms part of a single problem.
- (5) Where a proposal refers to the status of a particular name, a clear indication should be given, either in the title or at the beginning of the paper, of the Class and Order to which the genus or species belongs. Wherever possible the name of the family should be added.
- (6) The full bibliographical reference should be given for every name, whether generic or specific, cited.
- (7) In the case of generic names the type species should be clearly stated and a reference given to the circumstances in which that species became the type, *i.e.*:—
  - (i) whether so designated at the time of original publication; or
  - (ii) whether designated at a later date under Article 30 of the Code, and, if so, by what author it was so designated. (In these cases the full bibliographical reference should be given to the place where the species in question was designated as the type.)
- (8) Specific names should be cited in the same combination of generic and trivial names as that employed by the original author when first naming the species.
- (9) A full bibliographical reference consists of:—
  - (a) the generic or specific name in question;
  - (b) the name of its author;
  - (c) the date of its publication;
  - (d) the title of the work in which the name was so published;
  - (e) where the work in question consists of more than one volume, the volume number;
  - (f) the page number.
- (10) The titles of journals should be abbreviated in the form shown in the "World List of Scientific Periodicals," ed. 2, 1934; the names of authors and the titles of separate works should be cited in full.
- (11) Volume numbers should be cited in Arabic (and not in Roman) numerals.
- (12) Page references should be cited in accordance with the Harvard system of notation, *i.e.*, the page number preceded by a colon should follow immediately after the title of the work, or, where that work is in more than one volume, the volume number. The word "page" and the abbreviation "p." should not be used.

4. Priority of treatment will in all cases be given to proposals prepared in accordance with the foregoing instructions.

BY ORDER OF THE INTERNATIONAL COMMISSION  
ON ZOOLOGICAL NOMENCLATURE

FRANCIS HEMMING  
*Secretary to the International Commission.*

ON THE STATUS, UNDER ARTICLE 3 OF THE INTERNATIONAL CODE,  
OF A TRIVIAL NAME CONSISTING OF UN-LATINISED MODERN  
PATRONYMIC

By T. D. A. COCKERELL.

(University of Colorado, Boulder, Col.)

(Commission's reference Z.N.(S.)165.)

Some years ago Dr. Brown, palaeobotanist of the U.S. Geological Survey, developed the theory that the trivial names of species named after persons should not be latinised or take the possessive form. So he proposed a *Salix cockerell*. This name was, however, invalid since another man had published the same species as *Salix cockerelli*.

I thought that this practice would not spread, but in the *Proceedings of the Entomological Society of Washington* 41 : 54-58, published in February 1939, there is a paper containing descriptions of new species of the genus *Serica* Macleay, 1819, *Hor. ent.* 1 (1) : 146 (Order Coleoptera) by L. W. Saylor, containing the name *Serica craighead* (: 55), *Serica oliver* (: 56), and *Serica watson* (: 58).

The International Rules, however, require that such trivial names should be latinised, and the names referred to above do not conform to this requirement. The weak point is that in the early part of the XIXth century some fishes were named in this fashion and also at least one bird, and these names have become current.

I am very much opposed to changing names, if it can possibly be avoided, but whatever may have been done in the past there should be a stand against objectionable names in the future. I think that the zoological names cited above should be changed to the usual form.

ON THE STATUS, UNDER ARTICLE 3 OF THE INTERNATIONAL CODE,  
OF A SPECIFIC OR SUBSPECIFIC TRIVIAL NAME CONSISTING OF A  
PHONETIC REPRODUCTION OF THE INITIAL LETTERS OF TWO OR  
MORE MODERN PATRONYMIC

By R. G. FENNAH.

(Castries, St. Lucia.)

(Commission's reference Z.N.(S.)163.)

I should be grateful if the International Commission would render an *Opinion* on the question whether the trivial name "*veedee*" comprised in the specific name *Aglaostigma veedee* Ross, 1943, *Proc. ent. Soc. Wash.* 45 : 81, is acceptable in this form.

The name "*veedee*" presumably represents the initials "V.D." written phonetically. These letters are apparently the initials of E. C. Van Dyke and E. P. Van Duzee, both of whom are listed as collectors of this species, so that this specific trivial name may be jointly dedicatory in the form of initials.

Does a specific or subspecific trivial name so formed fulfil the requirements of Article 3 of the Code?

BULL. ZOOL. NOMENCL. (AUGUST 1945.)

**PROPOSAL THAT ARTICLE 22 OF THE INTERNATIONAL CODE SHOULD  
BE AMENDED BY THE ADDITION OF A "RECOMMENDATION" THAT  
AUTHORS' NAMES SHOULD NOT NORMALLY BE CITED**

By the late ARTHUR P. JACOT.

(Commission's reference Z.N.(S.)12.)

Pursuant to my article published on 12th September 1930 in *Science* 72: 272-273, and the advice of colleagues, I am writing to ask you to present to the Commission for consideration as an amendment to the International Rules, more specifically as a Recommendation to Article 22, the following:—

That the name of the author of a scientific name be omitted from scientific papers except catalogs and papers of rectification, and that in those cases where confusion might arise from its omission, a bold face numeral referring to the author reference in the bibliography (or to the most lucid presentation of the synonymy) be placed after the specific name.

If such a rule be enforced (by popular consent, or good example) scientific papers would no longer bristle with personal-family names and thus be nearer the impersonal scientific ideal. Furthermore, much pettiness would be eliminated from nomenclatural "technique".

**THE IMPLICATIONS OF DR. JACOT'S PROPOSAL FOR THE AMENDMENT  
OF ARTICLE 22 OF THE INTERNATIONAL CODE**

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature.)

(Commission's reference Z.N.(S.)12.)

In acknowledging receipt of Dr. Jacot's proposal, my predecessor, the late Dr. C. W. Stiles, drew attention to the fact that that proposal ran directly counter to the resolution adopted by the International Commission at Budapest in 1927, in which the Commission urged authors to cite at least once in each paper either (i) the name of the author and the date of publication of every name (generic, specific, or subspecific) referred to in that paper or (ii) a full bibliographical reference therefor. The resolution referred to by Dr. Stiles has since been embodied in the Commission's *Declaration 7* (see 1943, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1: 49-56).

Before, therefore, the International Commission could formulate, for the consideration of the International Congress of Zoology, a recommendation for the amendment of Article 22 of the Code in the sense proposed by the late Dr. Jacot, it would be necessary for them to revoke *Declaration 7*.

**ON THE INTERPRETATION OF ARTICLE 23 OF THE INTERNATIONAL CODE IN RELATION TO THE USE OF BRACKETS WHEN CITING THE NAME OF AN AUTHOR OF A SUBSPECIFIC TRIVIAL NAME WHEN THAT NAME APPEARS IN CONJUNCTION WITH THE SAME GENERIC NAME BUT NOT IN THE SAME RELATIONSHIP THERETO AS WHEN ORIGINALLY PUBLISHED**

By R. CHESTER HUGHES.

(Department of Zoology, Oklahoma Agricultural and Mechanical College, School of Arts and Sciences, Stillwater, Oklahoma.)

(Commission's reference Z.N.(S.)129.)

I am writing to solicit an *Opinion* on the interpretation of Articles 11 and 23 of the International Rules of Zoological Nomenclature as applied to three differing situations, respectively explained below in questions (1), (2), and (3), concerning the use of brackets in citing the authorship of a subspecific trivial name when that name appears in combination with the same generic name but not in precisely the same relationship as originally used.

That prominent taxonomists do not agree on any of the three points is clearly indicated by the below-cited examples of conflicting practice taken from the well-known check lists of Stejneger and Barbour (1933, *A Check List of North American Amphibians and Reptiles*), Peters (1931, *Check-List of Birds of the World* 1), and Miller (1924, "List of North American Recent Mammals 1923", *Bull. U.S. nat. Mus.* 128).

*Question (1)*

When a name, used at first only as a specific trivial name, later appears in repetition as specific trivial and subspecific trivial names, but in combination with the original generic name, should the name of the author be cited in brackets?

Conflicting examples in current usage:

- (a) A subspecies of *Rana aurora* Baird & Girard, 1852, *Proc. Acad. nat. Sci. Philad.* 6 : 174, is listed by Stejneger and Barbour (1933 : 39) as "*Rana aurora aurora* (Baird and Girard)"; whereas
- (b) A subspecies of *Didelphis virginiana* Kerr, 1792, *Anim. Kingd.* : 193, is listed as "*Didelphis virginiana virginiana* Kerr" by Miller (1924 : 3).

*Question (2)*

When a name, used originally as a specific trivial name, appears as a subspecific trivial name in combination with a different specific trivial name but in the same genus, should the author name be enclosed in brackets?

Conflicting examples in current usage:

- (a) *Batrachoseps leucopus* Dunn, 1922, *Copeia* 109 : 60, is listed by Stejneger and Barbour (1933 : 9) as "*Batrachoseps attenuatus leucopus* (Dunn)", whereas
- (b) *Mergus americanus* Cassin, 1852, *Proc. Acad. nat. Sci. Philad.* 6 : 187, is listed by Peters (1931 : 187) as "*Mergus merganser americanus* Cassin".

*Question (3)*

When a name, used originally as a subspecific trivial name, appears in combination with a different specific trivial name but in the same genus, should the author citation occur in brackets?

Conflicting examples in current usage:

- (a) *Didelphis marsupialis tabascensis* Allen, 1901, *Bull. Amer. Mus. nat. Hist.* 14 : 173, is listed by Miller (1924 : 3) as "*Didelphis mesamericana tabascensis* (Allen)", whereas
  - (b) *Buteo japonicus toyoshimai* Momiyama, 1927, *Annot. Orn. orient.*, Tokyo 1 : 73, is listed as "*Buteo burmanicus toyoshimai* Momiyama" by Peters (1931 : 236).
- BULL. ZOOL. NOMENCL. (AUGUST 1945.)

Although these authorities usually agree in the manner of citing author names, it will be noted that no two of them are in agreement on all three of the points under consideration. The difficulties arise, apparently, from the fact that the meaning of Article 11, especially in its bearing on Article 23, is not precisely clear.

**ON THE INTERPRETATION OF ARTICLE 23 OF THE INTERNATIONAL CODE IN CASES WHERE A SPECIES IS ORIGINALLY DESCRIBED AS BEING BOTH IN A GENUS AND IN A SUBGENUS AND LATER THE SUBGENUS IS ELEVATED TO GENERIC RANK AND THE SPECIES IS TRANSFERRED TO THE GENUS SO ERECTED**

By C. F. W. MUESEBECK.

(Officer in Charge, Division of Insect Identification, United States Department of Agriculture, Bureau of Entomology and Plant Quarantine, Washington, D.C.)

(Commission's reference Z.N.(S.)128.)

Article 23 provides that "when a species is transferred to another than the original genus, or the specific name is combined with any other generic name than that with which it was originally published, the name of the author is to be retained but placed in parentheses".<sup>1</sup>

A species of TRYPETIDAE (Order Diptera) was described under the designation *Anastrepha* (*Pseudodacus*) *macrura* Hendel, 1914, *Wien. ent. Ztg.*, **33** (1/2) : 66. It is now proposed to elevate *Pseudodacus* Hendel, 1914, *Wien. ent. Ztg.*, **33** (1/2) : 66, to generic status, and the question has been raised as to the applicability of Article 23 in this case. Is the trivial name to be considered as being combined with a new generic name when the subgenus in which it was originally described is elevated to generic rank? We are very frequently confronted with cases of exactly this type and the members of our staff have been divided in dealing with them, some considering the subgeneric name to be a part of the generic name and to have full generic significance in nomenclatorial treatment, others contending that the very fact that the subgeneric name was placed in parentheses indicates that it did not form a part of the original binomial, especially since Article 10 provides that the subgeneric name may or may not be cited. The first group therefore would omit parentheses from the author name when the subgeneric name is made generic, while the second group would use parentheses.

<sup>1</sup> The French text of the Code is the sole authentic text, the English, German and Italian texts being only translations of the French text. The substantive French text of paragraph (1) of Article 23 (the passage here quoted) reads as follows:—

Quand une espèce est transférée dans un genre autre que celui où son auteur l'avait placée, ou quand le nom spécifique est combiné avec un nom générique autre que celui auquel il était primitivement accolé, le nom de l'auteur de ce nom spécifique est conservé dans la notation, mais mis entre parenthèses.

**PROPOSAL TO DELETE ARTICLE 23 FROM THE INTERNATIONAL CODE***Resolution adopted by the American Malacological Union*(communicated by Mrs. Harold R. Robertson, *Financial Secretary, American Malacological Union*).

(Commission's reference Z.N.(S.)142.)

Whereas the practice of placing the names of authors of species in parentheses has ceased to be of any practical value and causes endless research on the part of taxonomists, therefore, be it

Resolved, that the American Malacological Union recommend to the International Commission on Zoological Nomenclature the wisdom of eliminating, in future, the use of such parentheses.

**ON THE QUESTION WHETHER A GENERIC, OR A SPECIFIC, NAME BASED UPON THE WORK OF AN ANIMAL BUT NOT ON THE ANIMAL ITSELF HAS ANY STANDING UNDER ARTICLE 25 OF THE INTERNATIONAL CODE**

By J. CHESTER BRADLEY.

(Professor of Entomology and Curator of Invertebrate Zoology, New York State College of Agriculture at Cornell University, Cornell University Agricultural Experiment Station, Ithaca, N.Y.)

(Commission's reference Z.N.(S.)140.)

M. V. Walker ("Evidence of Triassic insects in the Petrified Forest National Monument, Arizona", 1938, *Proc. U.S. nat. Mus.* **85** (No. 3033): 137-141) has described three new alleged genera involving five new alleged species of beetles (*Paleobuprestis maxima*; *P. minima*; *Paleoscolytus divergus*; *Paleopidus perforatus*; and *P. marginatus*).

No specimen of these insects has ever been seen by human eyes, and no description whatsoever is given of any one of their life-stages.

In connection with the name of each alleged species is given a description of certain channels, cuttings and castings found in petrified Triassic trees and ascribed to the larvae; nothing further.

*Opinion 2* of the International Commission states that: "Names based upon hypothetical forms have no status in nomenclature . . ." <sup>2</sup>

A similar situation arises in connection with gall insects, where authors have sometimes based alleged species names on descriptions of the galls. A. C. Kinsey ("The gall wasp genus *Cynips* . . ." Indiana University, Bloomington, Ind., 1930, 578 pp., incl. front., pl. (*Indiana Univ. Studies*, vol. 26; *Studies Nos.* 84, 85, 86; *Waterman Institute for Scientific Research, Publication No. 42*; Contribution from the Department of Zoology, Indiana University, No. 220, Entomological Series No. 7)) listing pre-occupied names in *Cynips* states: "Names applied to galls only . . . have not been considered to have nomenclatorial standing and are not included in this list".

<sup>2</sup> See 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* **1**: 87-94.

Is it the opinion of the International Commission that such names as these, based on the description of the work of an animal, but not of the animal itself, have any nomenclatorial standing whatsoever?

The burrows of many species of SCOLYTIDAE are characteristic of the species that made them, and so are the galls produced by insects and mites. Likewise many nests, tracks, and other structures may be readily associated by an expert with the species that produced them. But they are not the creatures and it is theoretically untenable to use them as the sole basis of specific description.

To those who would from a practical or realistic view-point adopt such names, on the ground that we know what animal was intended, it may be replied that it is not always clear with what degree of certainty we do. In describing, for example, polyform gall of *Cynips pezomachoides*, Kinsey (1930, *loc. cit.* : 375) says: "The gall characters may bear no more relation to the insect characters than the color of a man's eyes bears to his height."

Is it better that such alleged genera as *Paleobuprestis* Walker, 1938, *Paleoscolytus* Walker, 1938, and *Paleoipidus* Walker, 1938, should be given nomenclatorial status, and stand as hypothetical forms, the status of which can never be resolved from any knowledge of their morphology, than it is to have different types of burrows made by beetle larvae in Triassic tree-trunks described and figured but left without names?

#### ON THE STATUS, UNDER ARTICLE 25 OF THE INTERNATIONAL CODE, OF GENERIC NAMES WHERE THE GENERA CONCERNED ARE FOUNDED UPON FIGURES ONLY

By HARALD A. REHDER.

(Assistant Curator, Division of Mollusks, Smithsonian Institution, United States National Museum, Washington, D.C.)

(Commission's reference Z.N.(S.)68.)

Is a genus based solely on one or more recognisable figures validly proposed?

A great many of the plates of the molluscan part of the *Encyclopédie méthodique*, which was begun by Brugière and continued by Lamarek (for bibliographical data, see Sherborn and Woodward, 1906, *Ann. Mag. nat. Hist.* (7) 17 : 577-582), were published a number of years before the accompanying explanations or text appeared. These plates were inscribed at the top with the name of the genus to which the shells depicted below belonged. Among these generic names are several which make their first appearance in literature in this fashion.

In *Opinion 1*<sup>3</sup> a published figure is construed to be included under the term "indication" of Article 25 (a) as regards specific names,<sup>4</sup> but it is not mentioned in connection with generic names.

<sup>3</sup> See 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1 : 73-86.

<sup>4</sup> The intention of *Opinion 1* in the passage here referred to is to define the status not of "specific names" (i.e. combinations of generic and trivial names) but of "trivial names" (i.e. the second only of the two terms which together under Article 2 of the Code constitute the binominal combination of which every "specific name" is necessarily composed). See NOTE 4 to *Opinion 1* (1944, *loc. cit.* 1 : 78-79).

From *Opinion* 46 we might conclude that such names are valid, the fourth paragraph of the "Discussion" reading as follows:—"If an author clearly shows that the name he proposed is to be applied in a generic sense, and if this sense is uninomial, the name in question becomes available under the Code, for his paper shows that he applied the principles of binary nomenclature,<sup>5</sup> although he may have failed to name the species." Brugière's names are undoubtedly generic, and under this interpretation would be available.

These genera in question have generally been accepted by Dall, and others, as dating from these plates, but Winckworth (1934, *J. Conch.* 20 (2) : 52) has disputed their validity.

A ruling on this question is very desirable.

# ON THE PROBLEM RAISED BY DR. HARALD A. REHDER REGARDING THE STATUS OF GENERIC NAMES WHERE THE GENERA CONCERNED ARE FOUNDED UPON FIGURES ONLY

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature.)

(Commission's reference Z.N.(S.)68.)

The problem of the status of generic names, where the genera concerned are founded upon figures only, which has been raised by Dr. Harald H. Rehder, is not a single homogeneous problem but in fact consists of three problems, namely:—

- (1) The status of a generic name published on or after 1st January 1931, where the name is that of a genus founded upon figures (illustrations) only;
- (2) The status of a generic name published on or before 31st December 1930, where the name is that of a genus founded upon figures (illustrations) only, but where there is a "definite citation or designation of a type species", *i.e.* where (a) a type is designated by the author, or (b) the species figured, or one of the species figured, is figured under the specific trivial name "*typicus*" or "*typus*", (c) the type is fixed by absolute tautonymy, or (d) the genus is monotypical, only one species being figured under the generic name;
- (3) The status of a generic name published on or before 31st December 1930, where the name is that of a genus founded upon figures (illustrations) only, and where (a) two or more species are figured under the generic name in question and (b) no species is cited or designated as the type of the genus.

2. Names falling in class (1) above require, in order to be valid, to satisfy the requirements of proviso (c) added to Article 25 of the International Code by the Tenth International Congress of Zoology at Budapest in 1927. Under that proviso, which became operative as from midnight 31st December 1930/1st January 1931, a generic name would not be valid if published on a plate without a summary of characters of the genus and the definite unambiguous

<sup>5</sup> The meaning of the expression "*nomenclature binaire*" is at present *sub judice*. See the paper by the Secretary to the International Commission on pp. 108 to 111 below.

designation of the type species. (For the text of proviso (c) to Article 25, see 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1: 77.)

3. Names falling in classes (2) and (3) above are not subject to the proviso (c) to Article 25, since they were published before the date on which that proviso came into operation. In order to ascertain whether a name falling in either class (2) or class (3) is a valid name, it is necessary to determine whether it was published with an "indication" within the meaning of proviso (a) to Article 25, since *ex hypothesi* no such name was published with either a "definition" or a "description". The meaning to be attached to the expression "indication" as used in the foregoing proviso is laid down in *Opinion* 1 (see 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1: 73-86). It will be seen, by reference to *Opinion* 1, that a name belonging to class (2) was published with an "indication" and, therefore, satisfies the requirements of proviso (a) to Article 25. Such a name must accordingly be taken into consideration as potentially available under the Law of Priority. This does not mean that the name is necessarily an available name, since it may be unavailable for some other reason, for example by being invalid, as a homonym, under Article 34.

4. A name falling in class (3) does not satisfy any of the requirements of *Opinion* 1 and the natural conclusion is, therefore, that such a name is a name published without an "indication" and therefore a name which is not available, since it does not satisfy the requirements of proviso (a) to Article 25. It might be argued, however, that since "a published figure (illustration)" is accepted in *Opinion* 1 as constituting an "indication" in the case of a specific trivial name, the omission, in that *Opinion*, of a corresponding provision in the case of generic names was due to inadvertence. This is a question on which it is most desirable that any doubts should be laid to rest at the earliest possible moment and Dr. Rehder's application to the Commission provides a convenient opportunity for the Commission to reach a decision on this question. (This is a question which constantly confronts the systematist and on which, for his own work, he has to form a conclusion one way or the other. In my own work, I have hitherto concluded that the definition of the expression "indication", as applied to a generic name, given in *Opinion* 1 is what it purports to be, namely an exhaustive definition and therefore that nothing which is not included in that definition can be accepted as constituting an "indication". Accordingly, as will be seen from my paper on certain names published almost simultaneously by Fabricius and Illiger,<sup>6</sup> I have treated as unavailable under the Code certain names published by Illiger without a designated type and with more than one included species. Naturally, however, I shall review my conclusions in that and similar cases, in the light of whatever conclusion the International Commission may reach in regard to the general question of principle raised by Dr. Rehder.)

<sup>6</sup> The paper here referred to will be published in an early Part of this journal.

**ON THE INTERPRETATION OF ARTICLE 25 OF THE INTERNATIONAL CODE  
IN RELATION TO THE AUTHOR TO WHOM SHOULD BE ATTRIBUTED  
A SPECIFIC OR SUBSPECIFIC TRIVIAL NAME ORIGINALLY PUBLISHED  
CONDITIONALLY : CASE OF *HALICTUS MORBILLOSUS*  
*AEGYPTIELLUS* (CLASS INSECTA, ORDER HYMENOPTERA)**

By T. D. A. COCKERELL.

(University of Colorado, Boulder, Col.)

(Commission's reference Z.N.(S.)45.)

In 1909, *Archiv Naturgesch.* 75 (Bd. 1) : 11-12, E. Strand described a race from Egypt of the bee *Halictus morbillosus* Kirchbaumer, 1873, *Verh. zool.-bot. Ges. Wien* 23 : 61. Strand added :—"Ob die ägyptische Form schliesslich als distinct abzutrennen wäre, lässt sich nach diesem Material nicht mit Sicherheit entscheiden; eventuell möge sie den Namen *aegyptiellus* m. bekommen."

Later (1924, *Ann. Mag. nat. Hist.* (9) 14 : 582), I had occasion to give a synopsis of the races of *Halictus morbillosus*, and included *aegyptiellus* as if validly published by Strand.

More recently, Blüthgen and Alfken, having concluded that the name *aegyptiellus* represents a distinct species, have cited it as *Halictus aegyptiellus* Cockerell.

This appears to me inadmissible; but it would be useful to obtain a ruling on the point from the International Commission.

**ON THE STATUS, UNDER ARTICLE 25 OF THE INTERNATIONAL CODE,  
OF THE NAMES OF SPECIES OF PARASITES PUBLISHED, PRIOR TO  
1ST JANUARY 1931, WITH NO DESCRIPTION, DEFINITION, OR INDICATION  
OTHER THAN THE NAME OF THE HOST**

By KARL JORDAN, Ph.D., F.R.S.

(British Museum (Natural History), The Zoological Museum, Tring).

(Commission's reference Z.N.(S.)167.)

Miss Theresa Clay, British Museum (Natural History), has asked me to place before the International Commission the case of the names of external parasites published with no description, except such as is provided by the name of the host.

Numerous names of this kind were published in the Order Mallophaga (Class Insecta) by Nitzsch, 1818, in Germar, *Mag. Ent.* 3 : 290-305. The following are examples of new trivial names published in this way by Nitzsch in the new genus *Philopterus* Nitzsch, 1818, *ibid.* 3 : 281, 288 :—

*Ph. pertusus* (Fulicae atrae)

*Ph. melanocephalus* (Larorum et Sternarum)

*Ph. auratus* (Scolopac. rusticolae)

*Ph. latifrons* (Cuculi europaei).

In the above cases there is given no description or definition; no figure is given; and no bibliographical reference is given to any such description,

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definition or figure. The name of the host or the names of the hosts are the sole indication given of the identity of the new species named.

A similar example is provided by the list of mammals and birds on which epizoa are found published by Gurtl, 1857, *Arch. Naturgesch.* 23 (No. 1): 276-311, in which new names of parasitic insects are published without any indication of the species concerned, other than that provided by the name of the host. Under the name "*Mustela vulgaris*",<sup>7</sup> for instance, there is *Pulex mustelae* Schill., a new name for a flea. Schilling was responsible for some of the new names in this paper.

A trivial name published for a parasite with no indication other than that afforded by the name of the host seems to me to be in a position exactly similar to that of a trivial name published for a non-parasitic species with no indication other than that afforded by the type locality. In the last-named case, the International Commission have already, in *Opinion* 52, laid it down that the citation of a type locality unaccompanied by any other indication is insufficient to render a name available under proviso (a) to Article 25 of the Code. Accordingly, I now petition the Commission to render a complementary *Opinion*, laying it down that the citation of the name of a host unaccompanied by any other indication is insufficient to render a trivial name for a parasite available under proviso (a) to Article 25. The *Opinion* asked for relates only to trivial names published on, or before, 31st December 1930, the last day prior to the coming into force of the amendment to Article 25 agreed upon by the Tenth International Congress of Zoology at Budapest in 1927, since clearly no trivial name published after that date with no indication other than the name of the host satisfies the requirements of proviso (c) then added to Article 25.

**THE PROCEDURE PROPOSED TO BE ADOPTED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE IN PREPARING THE REPORT ASKED FOR BY THE TWELFTH INTERNATIONAL CONGRESS OF ZOOLOGY IN REGARD TO THE MEANING TO BE ATTACHED TO THE EXPRESSION "NOMENCLATURE BINAIRE" IN THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE AND ON MATTERS INCIDENTAL THERETO**

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature.)

(Commission's reference Z.N.(S.)112.)

At the meeting held at Padua on 10th September 1930, of the Section on Nomenclature of the Eleventh International Congress of Zoology, a proposal regarding the meaning to be attached to the expression "*nomenclature binaire*" as used in the International Code of Zoological Nomenclature was brought forward by the late Dr. Walther Horn (Berlin). The Resolution so brought forward (which later came to be known as the "Horn Resolution") was put to the vote at the meeting of the Section on Nomenclature and was carried by a majority.

<sup>7</sup> Gurtl gave neither the name of the author nor a bibliographical reference for the host species which he cited. The species here intended is *Mustela vulgaris* Schreber, [1776], *Die Säugethiere* 3 : pl. 138; [1777], *ibid.* 3 : 498.

2. The Standing Orders of the International Congress contained no provisions for dealing with resolutions carried by a majority vote at meetings of Sections of the Congress. Accordingly, the resolution referred to above was dealt with in the same way as that laid down for resolutions adopted unanimously by Sections of the Congress. It was, therefore, reported to the Secretary-General of the Congress for the purpose of being brought before the whole Congress at the final Concilium Plenum. In accordance with the established procedure of the Congress, no discussion of resolutions so brought forward is permitted, the Congress being asked to signify by a show of hands whether or not they approve and adopt the resolutions in question. Under this procedure, the resolution in regard to the meaning of the expression "*nomenclature binaire*" adopted by the Section on Nomenclature was brought before the final Concilium Plenum of the Eleventh International Congress of Zoology, by which, on a show of hands, it was adopted by a majority.

3. At their meeting held during the Twelfth International Congress of Zoology at Lisbon in September 1935, the Permanent Committee of the International Zoological Congresses had under consideration the action to be taken in the light of the resolution adopted at Padua in 1930. After full consideration, the Permanent Committee agreed to refer back to the President of the Section on Nomenclature (Section XII) of the Lisbon Congress for further study the questions raised by the Padua resolution. On receiving this request from the Permanent Committee, the President of the Section on Nomenclature decided to submit the issues involved to the International Commission on Zoological Nomenclature for deliberation and report.

4. The foregoing request by the President of the Section on Nomenclature was reported to the International Commission at their meeting held on the morning of Wednesday, 18th September 1935. The following is an extract from the portion of the *Official Record of Proceedings* of the International Commission dealing with this matter (Lisbon Session, 5th Meeting, Conclusion 3, published in 1943, *Bull. zool. Nomencl.* 1: 45):—

THE COMMISSION :—

- (a) took note of the above statement by the President of the Commission;
- (b) agreed to take into consideration after the Congress the question in regard to the definition of binary nomenclature dealt with in the so-called "Horn Resolution" voted upon at the Eleventh International Congress of Zoology held at Padua in 1930 and, in accordance with the request of the President of Section XII of the Twelfth International Congress of Zoology, to whom the matter had been referred by the Permanent Committee of the International Zoological Congresses, to submit a report thereon to the International Congress of Zoology at its next meeting;
- (c) agreed to include a paragraph recording the foregoing decision in the report now to be submitted to the Twelfth International Congress of Zoology.

5. The report unanimously adopted by the International Commission (Lisbon Session, 5th Meeting, Conclusion 5) for submission to the Twelfth International Congress of Zoology contained the following paragraph dealing with this subject :—

14. The method of dealing with the so-called "Horn Resolution" relating to the definition of binary nomenclature, voted upon at the meeting of the International Zoological Congress held at Padua in 1930, has been considered by the Permanent Committee of the International Zoological Congresses during the Lisbon meeting, and that body has referred the question dealt with in that resolution back to the Chairman of the Section on Nomenclature at the Lisbon Congress for further study. The Chairman of that Section has, in turn, submitted it to the International Commission on Zoological Nomenclature for deliberation and report. The matter will accordingly be further considered by the Commission in due course.

6. The report of the International Commission was considered on the afternoon of Wednesday, 18th September 1935, at the Public Meeting of the Commission, held jointly with the Section on Nomenclature (Section XII) of the Congress. After discussion, the Commission's report was unanimously approved by the Meeting, both as the Public Meeting of the International Commission (Lisbon Session, 6th Meeting, Conclusion 3, published in 1943, *Bull. zool. Nomencl.* 1 : 51) and as Section XII of the Congress, for submission to the Concilium Plenum of the International Congress of Zoology to be held on Saturday, 21st September 1935.

7. The report of the International Commission was unanimously approved and adopted by the Twelfth International Congress of Zoology at the Concilium Plenum held on 21st September 1935, the last day of the Congress (see 1943, *Bull. zool. Nomencl.* 1 : 63).

8. A special report on the questions raised by the "Horn Resolution" will accordingly be prepared by the International Commission for submission to the Thirteenth International Congress of Zoology. The main issues which will need to be dealt with in that report are the following :—

- (1) What is the meaning which, under a due construction of the wording employed in the *Règles Internationales de la Nomenclature zoologique*, is properly applicable to the expression "*nomenclature binaire*" as used in those *Règles*?
- (2) In the light of the answer to be given to question (1) above, is it desirable to make any, and, if so, what, changes in the wording of the relevant provision of the *Règles Internationales* for the purpose either of clarifying, or altering, the meaning of the *Règles*, as respects the expression "*nomenclature binaire*"?
- (3) Is it desirable that any, and, if so, what, provisions should be incorporated in the Standing Orders of the International Zoological Congresses governing the procedure to be followed as regards (a) the bringing forward of resolutions in the Sections of the Congress, (b) the putting of such resolutions to the vote at meetings of Sections, and (c) the subsequent handling of resolutions adopted, either unanimously or by a majority, by Sections of the Congress?

9. Owing to the outbreak of war in 1939, no conclusions of even the most provisional or tentative character have yet been reached by the International Commission on any of the foregoing aspects of the question referred to them. It is very desirable, however, that, as soon as may be practicable after the war, progress should be made in the consideration of this important subject. For this purpose, the Executive Committee of the International Commission are anxious to begin at once the collection and collation of the factual material which the International Commission will need to have before them when considering this question.

10. Accordingly, the Executive Committee of the International Commission invite specialists in all groups in the Animal Kingdom to assist the International Commission in this important investigation by furnishing them with the following material as respects the literature covering their own speciality (Phylum, Class or Order, as the case may be) :—

- (A) a statement giving the name of the author, the date of publication, and the title of the principal works and papers dealing with their

speciality in which the system of nomenclature employed for species is not strictly binominal;

NOTE :—Where a given work falling in the above class deals with a wider field than that of a particular worker's speciality, it is requested that the work in question should be included in the statement to be furnished but that a note should be added indicating that it deals also with other divisions of the Animal Kingdom.

- (B) a note showing, as respects each of the works enumerated in the list referred to in (A) above, the extent to which new generic names published in that work are in general use in the systematic literature of the group concerned;
- (C) an estimate of the extent to which existing nomenclatorial practice in the group concerned would need to be changed and confusion would be likely to arise if the International Code of Zoological Nomenclature were amended, in order to make it clear :—

EITHER

- (i) that generic names are to be accepted as available under Article 25, when published before 1st January 1931 (or such earlier date as it may be found convenient to select) in a work in which the author clearly employed for species a system of nomenclature which recognised the existence of two categories (namely the genus and the species), but which was not consistently binominal in character;

NOTE :—The date 1st January 1931 is clearly the latest date which could be selected for such a purpose, since every generic name published after that date now needs to satisfy the rigorous provisions contained in proviso (c) added to Article 25 of the Code at Budapest in 1927 (see 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1 : 73–86).

OR

- (ii) that no generic name is to be accepted as available under Article 25, unless throughout the work in which that name is published the author clearly accepts a system of nomenclature which, as respects species, is strictly binominal in character.

ON THE MEANING TO BE ATTACHED TO THE EXPRESSION "*LE PLUS ANCIENNEMENT DÉSIGNÉ*" USED IN ARTICLE 25 OF THE INTERNATIONAL CODE, WITH SPECIAL REFERENCE TO THE CASE OF *OPHIOTAENIA RANARUM* IWATA AND MATUDA, 1938, AND *OPHIOTAENIA RANAE* YAMAGUTI, 1938 (CLASS CESTOIDEA, ORDER TETRAPHYLLIDEA)

By SATYU YAMAGUTI, M.D.

(Lecturer in Parasitology, Kyoto Imperial University, Japan.)

(Commission's reference Z.N.(S.)125.)

May I ask for an *Opinion* on the priority of the names proposed for the same species on the following dates:—

- (1) "*Ophiotaenia ranarum* Iwata et Matuda, 1938", described by Iwata and Matuda in Japanese in *Nippon Dobutu Bunnri*, Volume 4, Part 3, published on 9th March 1938 (translation of their original (then unpublished) English paper).
- (2) "*Ophiotaenia ranae* n. sp.", described by myself in English in the *Japanese Journal of Zoology*, Volume 7, Part 4, published on 30th March 1938.
- (3) "*Ophiotaenia ranarum* n. sp.", described by Iwata and Matuda in English in the *Zoological Magazine*, Volume 50, Part 4, published on 15th April 1938.

ON THE STATUS, UNDER ARTICLE 25 OF THE INTERNATIONAL CODE, OF SPECIFIC NAMES PUBLISHED WITH DESCRIPTIONS BUT WITHOUT COMPARISON WITH ALLIED SPECIES

By H. B. HUNGERFORD.

(Department of Entomology, University of Kansas, Lawrence, Kansas.)

(Commission's reference Z.N.(S.)61.)

According to proviso (c) to Article 25 of the Rules of Zoological Nomenclature,<sup>8</sup> new species must be compared with others, etc. During the past year we have seen any number of descriptions such as the following published by Auten (M.) & Johnson (D. M.), 1936, *Annals of the Entomological Society of America* 29 : 62 :—

*Erythroneura contrasta* n. sp.

(Fig. 3)

Background of vortex and pronotum yellowish white, vittae of head, pronotum and scutellum orange, of elytra scarlet. Vertex with even-sided inverted V, arms very slightly broadened toward eyes; vittae continued across pronotum, inner margins parallel, outer diverging, at posterior margin equal in width to basal angles of scutellum; scutellum, basal angles yellow orange, tip orange; elytra, inner vittae sharply defined, bright and even, costal margin washed with translucent orange yellow, three dusty spots, the outer large, before crossveins; apical cells fumose. Below creamy, washed with orange on face, some outer spines on hind tibiae dark. Length 3 mm.

*Genitalia* : Style slender with rather large, heavy foot; heel large, projecting;

<sup>8</sup> For the text of proviso (c) to Article 25, see 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1 : 77.

base somewhat convexly curved; anterior point projecting cephalad, short and sharp; posterior point heavy, as long as base, its outer margin in straight line with that of anterior point, pointed at apex, widening rapidly on outer half, then parallel-sided to base; oedagus in lateral view long, stout at base, curved dorsad, a pair of lateral leaf-like expansions at apex; outer fourth narrowing gradually to apex; pair of slender, blunt-tipped processes arises just ventrad to shaft and follows it closely for three-fourths of its length.

One male (holotype), two females (allotype and paratype), on *Japonica*, iv-6-34.

According to the Rules, may *Erythroneura contrasta* Auten & Johnson, 1936 (Class Insecta, Order Hemiptera Homoptera) be ignored?

If, during the same year but later month, another named the same insect, should not the latter name stand if it fulfils the rules?

**ON THE INTERPRETATION OF ARTICLE 34 OF THE INTERNATIONAL CODE IN RELATION TO A GENERIC NAME IDENTICAL WITH A NAME PREVIOUSLY PUBLISHED FOR A GENUS IN THE ANIMAL KINGDOM, WHERE THAT GENUS HAS BEEN TRANSFERRED TO THE VEGETABLE KINGDOM IN ACCORDANCE WITH ARTICLE 1 OF THE INTERNATIONAL CODE**

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature.)

(Commission's reference Z.N.(S.)155.)

The substantive French text<sup>9</sup> of Article 1 of the International Code of Zoological Nomenclature reads as follows:—

1.—(1) La Nomenclature zoologique est indépendante de la Nomenclature botanique, en ce sens qu'un nom d'animal ne peut être rejeté pour ce seul motif qu'il est identique à un nom de plante.

(2) Mais si un être est transporté du Règne végétal dans le Règne animal, ses noms botaniques sont incorporés à la Nomenclature zoologique avec tous leurs droits à la priorité.

(3) Si un être est transporté du Règne animal dans le Règne végétal, ses noms zoologiques sont maintenus dans la Nomenclature zoologique.

2. The substantive French text<sup>9</sup> of Article 34 of the International Code of Zoological Nomenclature reads as follows:—

34.—Tout nom générique est rejeté comme homonyme, quand il a été employé précédemment pour quelque autre genre d'animaux.

3. A question has arisen as to the way in which the provisions of Article 34 shall be interpreted in the case where a generic name is published for a genus originally believed to belong to the Animal Kingdom, but subsequently is transferred to the Vegetable Kingdom, and later the same word is published as the name of another genus in the Animal Kingdom. Is the later name so published an available name in view of the fact that at the time of its publication there was no genus in the Animal Kingdom possessing that name, the only earlier genus of that name having been transferred to the Vegetable Kingdom? Or is the later generic name invalid as a homonym under Article 34, in view of the fact that at some earlier date, though not at the

<sup>9</sup> In case of dispute, the only substantive text of the International Code of Zoological Nomenclature is the French text. The English, German, and Italian texts are only translations of the French text.

date on which the later name was published, there had been a genus possessing the same name which it had then been believed (though erroneously) belonged to the Animal Kingdom?

4. The practical difficulties—and the risk of confusion—arising from the present state of doubt in this matter are well exemplified in the case of the generic name (*Oscillaria*) used in the original description of *Oscillaria malariae* Laveran, 1881, the Malignant Tertian Malaria Parasite. The facts of that case are given in detail in my forthcoming paper on the nomenclature of that Parasite and the Quartan Malaria Parasite.<sup>10</sup> The point at issue is brought out in the following summary:—

- (1) In 1823 Schrank (*Nova Acta Acad. Caes. Leopold. Carol.* 11 (No. 2) : 533) proposed the name *Oscillaria* for a genus which on balance he believed to be a genus belonging to the Animal Kingdom.
- (2) Later, it was found that the genus *Oscillaria* Schrank, 1823, was not a genus of animals but a genus of algae;—in consequence, the name *Oscillaria* Schrank, 1823, was transferred to the Vegetable Kingdom. At this stage, therefore, there was no genus in the Animal Kingdom possessing the name *Oscillaria*.
- (3) In 1881 Laveran (*Nature parasit. Accid. Impaludisme* : 87) described as *Oscillaria malariae* the species now known to be the Malignant Tertian Malaria Parasite. In doing so, Laveran made it clear that he regarded the above organism as belonging to the Animal Kingdom.
- (4) Laveran did not indicate whether he regarded the genus *Oscillaria* as a new generic name or whether he considered that his new species belonged to the genus *Oscillaria* Schrank, 1823, and therefore described it under that generic name.

5. If at the time of the publication in 1881 of Laveran's paper the genus *Oscillaria* Schrank, 1823, had still been a genus in the Animal Kingdom, Laveran's action in placing the Malignant Tertian Malaria Parasite in this genus (if that is what Laveran then conceived himself as doing) would have been a taxonomic error but it would not have created any nomenclatorial problem, since he would not have created a new genus (having the name *Oscillaria*) in the Animal Kingdom.

6. If at the time of the publication in 1881 of Laveran's paper the genus *Oscillaria* Schrank, 1823, had still been a genus in the Animal Kingdom and if Laveran had conceived himself to have erected on that occasion a new genus having the name *Oscillaria*, no nomenclatorial difficulty would have arisen, since clearly under Article 34 of the Code the name *Oscillaria* Laveran, 1881, would have been a homonym of *Oscillaria* Schrank, 1823, and therefore an invalid name.

7. If at the time of the publication in 1881 of Laveran's paper there never had been a genus in the Animal Kingdom named *Oscillaria*, the name *Oscillaria* Laveran, 1881, would have been an available name nomenclatorially, since, being a monotypical genus (type: *Oscillaria malariae* Laveran, 1881), it would have been a generic name published with an "indication" as that expression is defined in *Opinion* 1.<sup>11</sup>

8. The question now to be settled is whether the name *Oscillaria* is available for a genus in the Phylum Protozoa or whether, having regard to the

<sup>10</sup> The paper here referred to will be published in an early Part of this journal.

<sup>11</sup> See 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1 : 73-86.

fact that, before its transfer to the Vegetable Kingdom, there had been a prior generic name *Oscillaria* (i.e. *Oscillaria* Schrank, 1823) in the Animal Kingdom, the name *Oscillaria* Laveran, 1881, is invalid as a homonym under Article 34 of the Code.

9. It might be argued that, as Article 34 speaks only of the situation arising when a generic name has been "employé précédemment pour quelque autre genre d'animaux", and as, in fact, the name *Oscillaria* had been applied by Schrank to a genus of plants (doubtfully, and as it now appears mistakenly, treated by him to be animals), Article 34 does not apply to the name *Oscillaria* Laveran, 1881, there being no previously published genus of animals having that name. If this is the correct interpretation of Article 34, that Article has no bearing on a generic name, where the only previously published generic name consisting of the same word has been found to be a genus of plants, not of animals, and has accordingly been transferred from the Animal Kingdom (to which, in fact, it never belonged) to the Vegetable Kingdom in accordance with the provisions of Article 1.

10. On the other hand, it might also be argued that in this matter the operative portion of the Code is not Article 34 but Article 1 and that, in view of the provision in the last sentence of that Article that, where "un être est transporté du Règne animal dans le Règne végétal, ses noms zoologiques sont maintenus dans la Nomenclature zoologique", a genus transferred to the Vegetable Kingdom in this way nevertheless retains its status in zoological literature to the extent that, for the purpose of Article 34, the name of the genus concerned is still to be treated as the name of a genus in the Animal Kingdom. If this is the correct interpretation of these two Articles of the Code, then it would be entirely immaterial for the purpose of Article 34 whether or not the older of any given pair of generic names was the name of a genus which, at some time subsequent to its original publication, had been transferred from the Animal Kingdom to the Vegetable Kingdom; in either case the existence in zoological literature of the older of the two generic names would render the later published of the two names invalid as a homonym. On the basis of this argument, the name *Oscillaria* Laveran, 1881, is an invalid name by reason of being a homonym of *Oscillaria* Schrank, 1823, notwithstanding the fact that at the time of the publication of Laveran's paper there was no genus in the Animal Kingdom possessing the name *Oscillaria*, the genus of that name described by Schrank in 1823 having been transferred to the Vegetable Kingdom, where it properly belongs.

11. From the theoretical standpoint, the interpretation indicated in paragraph 10 above appears to be the correct one, since the opposite interpretation would make it impossible for circumstances ever to arise in which the provisions of paragraph (3) of Article 1 would be applicable, a result which would be manifestly contrary to the intentions of the framers of the Code. From the practical point of view also, there can be no doubt that the balance of advantage lies in favour of the interpretation set out in paragraph 10 above, since if the opposite interpretation (i.e. that set out in paragraph 9 above) were declared to be the correct interpretation, there would always be some risk of confusion, as it would be possible to establish a genus with a nomenclatorially available name, although that same name had previously been published as the name of a genus believed (though erroneously) to be a genus in the Animal Kingdom, where that genus had later been transferred to the Vegetable Kingdom.

12. This is clearly a case where it is desirable that all doubts regarding the meaning of the Code should be set aside by an authoritative ruling and I

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accordingly invite the International Commission to adopt an *Opinion* making it clear that, for the purposes of Article 34, the expression "employé précédemment pour quelque autre genre d'animaux" applies not only to a name "previously employed for some other genus of animals" but also to a name "previously employed for a genus of plants where at the time in question that genus was believed to be a genus of animals".

## ON THE QUESTION OF RECOGNISING "NEOTYPES"

By DON L. FRIZZELL and HARRY E. WHEELER.

(Stanford University, California.)

(Commission's reference Z.N.(S.)24.)

In a case in which the original types of a species "A" are lost or otherwise unavailable, and in which two or more species—all fitting the description of species "A"—occur at the type locality, can the identity of species "A" be established by the designation of one or more neotypes\*? If so, should the terms "neoholotype" and "neoparatype" (corresponding to "holotype" and "paratype" in the original type material) be employed? If the designation of "neotypes" is not accepted, how is the identity of species "A" to be determined? The following case is submitted to the Commission in the hope of obtaining a ruling on the validity of the term "neotype" and the principle involved, rather than merely to solve the specific problem offered by the following example.

Example.—Shumard, writing in 1858, *Trans. Acad. Sci. St. Louis* 1 : 297 (published in 1860), described *Fusulina elongata* as follows :—

Shell nearly cylindrical, very slender and much elongated, pointed at the extremities, which are slightly curved; chambers very numerous; aperture very narrow, linear, extending the entire length. Surface covered with fine, somewhat flexuous striae.

*Dimensions*.—Length, from one to two inches; width, from one to two lines. This species is at once distinguished from *F. cylindrica* by its remarkable length.

Occurs in the White Limestone [Capitan formation], Dark Limestone and Sandstone [Delaware Mountain formation] of the Guadalupe Mountains of New Mexico and Texas.

No illustration accompanies Shumard's original description, and his types, unfortunately, have been lost.

There are at least seven species, belonging to two genera, at the type locality of "*F.*" *elongata* Shumard, all answering to the original description (according to J. Skinner, letter to H. E. Wheeler, dated 15th June 1932). Skinner also

\* The term "neotype" was proposed by Cossmann (1896, *Essais de Paléontologie comparée* 2 : 2) in two senses; first, as a genotype by subsequent designation or elimination; and second, as a specimen from the type locality of a species, chosen as type of that species in the event of loss or destruction of the original types. The second use of the term was adopted by Schuchert (1905, *Bull. U.S. nat. Mus.* 53 (1) : 13) and is in somewhat general use among paleontologists. The term was recommended by Banks and Caudell (*Entomological Code*) but has not been recognised, as far as we know, by the International Rules of Zoological Nomenclature. Howell (1929, *Bull. geol. Soc. Amer.* 40 : 219) proposed the term "neoholotype" to apply to a specimen of the neotype series corresponding to the holotype in the original type material. Plummer and Howell (1932, *Bull. geol. Soc. Amer.* 43 : 266) proposed the term "neoparatype" which is to bear the same relationship to "neoholotype" that "paratype" bears to "holotype". Both are special kinds of neotypes.

states in the letter that Girty (1908, *U.S. geol. Surv.*, Prof. Paper 58 : 62), in his figures and description of "*F.*" *elongata* Shumard, based on specimens from the type locality, includes at least four species belonging to two genera.

Dunbar and Skinner (1931, *Amer. J. Sci.* (5) 22 : 262) rejected the name "*F.*" *elongata* Shumard, reasoning that : "Since several species and at least two genera occur within the stratigraphical limits indicated, all of which fall within the extremes of the dimensions given, there is no possibility of deciding which was actually described by Shumard". These authors propose the genera *Parafusulina* Dunbar & Skinner 1931, *Amer. J. Sci.* (5) 22 : 252, and *Polydiexodina* Dunbar & Skinner 1931, *ibid.* (5) 22 : 252, with the new species *Parafusulina wordensis*, *Polydiexodina capitaneensis* and *Polydiexodina shumardi*. The latter two species were described from the type locality of "*F.*" *elongata* Shumard; and the text strongly suggests that the first, *P. wordensis*, also occurs there.

Discussion.—It is obvious that, if the law of priority is to hold, the name "*Fusulina*" *elongata* Shumard must be used for some species occurring in the Capitan or Delaware Mountain formations of the Guadalupe Mountains. It is most desirable that all workers apply the name to the same species. Since the original types of this species have not been preserved, there seems only one way of tying the name to a definite species, namely by the selection of neotypes. An alternative solution might be to declare the name "*F.*" *elongata* Shumard a *nomen dubium*.

There are important objections to regarding "*F.*" *elongata* Shumard as a *nomen dubium*. The description was adequate when made, and distinguished *elongata* from other described species. Further, an adequate type locality was added. Rejection of a name merely because several species fit the description would establish a dangerous precedent. *No author of a species can describe against the future*, especially since there is an increasing tendency toward finer differentiation of species. To allow a reviser to reject a specific name as "unrecognizable", and to rename the biological units upon which that obviously was based, would certainly not tend toward a stabilisation of nomenclature.

Article 25 of the International Rules of Zoological Nomenclature<sup>12</sup> states plainly that : "The valid name of a genus or species can be only that name under which it was first designated on the condition :—(a) that this name was published and accompanied by an indication, or a definition, or a description; and (b) that the author has applied the principles of binary nomenclature".<sup>13</sup> Thus it seems inevitable that "*Fusulina*" *elongata* Shumard must be a valid name for some species.<sup>14</sup>

Dunbar and Skinner (*loc. cit.*) make the point that : "there is no possibility of deciding which [of the several species] was actually described by Shumard". However, since all of the several species occurring at the type locality fit the original description of "*F.*" *elongata* Shumard, and since they all occur within the stratigraphic limits indicated for that species, we can

<sup>12</sup> In case of dispute, the French text is the only substantive text of the International Code of Zoological Nomenclature, the English, German and Italian versions being no more than translations of the French text.

<sup>13</sup> It should be noted that the version of Article 25 here quoted is the (English translation of the) text of that Article as it existed up to 1927 and does not include the modifications and additions approved by the Tenth International Congress of Zoology at Budapest in September of that year. See 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1 : 76-78.

<sup>14</sup> For a note on the portion of Article 25 here quoted, see pp. 110-111 below.

infer only that they were all included in Shumard's species, and the species, in effect, has been divided by a subsequent reviser. In this regard, Article 24 of the Rules states<sup>15</sup>: "When a species is divided [as '*F. elongata*' Shumard certainly has been], the restricted species to which the original name of the primitive species is attributed may receive a notation indicating both the name of the original author and the name of the reviser"—thus implying, at least, the procedure that should be followed in the case of "*F. elongata*" Shumard.

If the holotype of a composite species such as "*F. elongata*" Shumard were in existence, there would be no doubt that it would represent the species to which the original name must be attributed. When the original types are completely unavailable, however, the reviser must select arbitrarily the species to bear the name. If at the same time he can designate a "neotype" (or "neotypes", if "neoholotype" and "neoparatype" can be admitted) which will be accepted by the Commission as they now accept holotypes, such procedure will certainly tend to stabilise nomenclature and prevent some of the shuffling about of names, which is so common at present.

## ON THE PROPOSAL THAT THE INTERNATIONAL CODE SHOULD BE AMENDED TO PROVIDE FOR THE ESTABLISHMENT OF "NEOTYPES"

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature.)

(Commission's reference Z.N.(S.)24.)

Systematic workers in every Phylum of the Animal Kingdom are constantly embarrassed by the difficulties caused by ambiguous and inadequate descriptions, more particularly (though by no means exclusively) in the case of specific names published in the XVIIIth century. Where the collection of the author of such a name has been preserved and it is therefore possible to identify the material on which he based his ambiguous or inadequate description, it is possible to identify with absolute certainty the species to which the specific name in question is correctly applicable. A specimen so preserved in the original author's collection can properly be regarded as a "co-type" even if the name in question was published in the period which preceded the formal acceptance of the principle that the description of a species should be based upon a definite specimen or certain definite specimens. Similarly, where such an author clearly indicated that he based his description upon a single example, that specimen, if preserved, can properly be regarded as the holotype of the species.

Where a co-type or the holotype can be found in the collection of the original author, it frequently happens that, what had previously appeared to be an ambiguous or inadequate description, is perfectly sufficient to enable the species in question to be recognised and indeed is quite a good description according to the standards of the time at which it was written.

Where, however, the original type material is lost, or is believed to be lost, a name such as that discussed above is a source of great embarrassment in the taxonomy of the group concerned, where it stands as a *nomen dubium*, which,

<sup>15</sup> See footnote 12 above.

though available nomenclatorially, cannot at the moment be used for any known species because the species to which it was applied by its original author is not identifiable. Such a name is a menace to the stability of the nomenclature of the group, owing to the possibility that, through the rediscovery of the type material or for some other reason, the species to which it was applied by its original author may at some later date become recognisable and the name will cease to be a *nomen dubium* and will therefore replace a name currently in use for the species concerned.

Any scheme which would overcome these difficulties, without at the same time creating as great or even greater difficulties of a different kind would, therefore, be extremely welcome. The proposal that authority should be given for the establishment of "neotypes", which has been submitted to the International Commission by Messrs. Don L. Frizzell and Harry E. Wheeler, deserves, therefore, the most careful and sympathetic study.

The problem is, however, one of considerable complexity and it will be necessary to take into account a number of important considerations in addition to those set out in the "statement of the case" submitted in support of the present proposals. These considerations include the following:—

- (1) In view of the fact that there exists no central or other register showing the disposal and present location either of the types of species or subspecies or of the collections made by the authors by whom species or subspecies have been described, what preliminary action is it proposed that the International Code should require to be taken by an author to satisfy himself that, in fact, the whole of the type material of a given species (or subspecies) has been lost, before that author shall be entitled to establish a "neotype" for the species in question?

(NOTE:—It is obvious that a definite procedure on this matter would be an essential condition precedent to the grant of any juridical status to a "neotype". Otherwise, serious difficulties would arise through competition between "neotypes" established without due care and the original holotype or paratypes of the species concerned.)

- (2) For the reasons explained in (1) above, it would inevitably happen that, in spite of all reasonable care having been taken, a "neotype" would sometimes be established for a species, some part of the original type material of which was still in existence and that examination would show in some of such cases that the "neotype" was referable to a different species from that represented by the original type material. What provisions is it proposed should be inserted to regulate such a situation when it arose? Is it proposed that the name should continue to attach to the species to which the "neotype" belonged or is it contemplated that the name should be transferred back to the species to which the original type material was found to belong?
- (3) The types of the majority of the species in the Animal Kingdom described in the XVIIIth century and the types of thousands of species described since that period have either disappeared or their present location is not known. What safeguards is it proposed should be inserted in the Code to prevent the commercial exploitation of the right proposed to be given to establish "neotypes". At the present time holotypes and paratypes have a considerable monetary value and museums compete with one another to acquire them. It is obvious, therefore, that in the absence of special provisions to deal with this aspect of the matter, "neotypes" would be established in large numbers

for the sake of the financial benefits accruing from the possession, and subsequent sale, of such specimens.

(NOTE:—The establishment of "neotypes" for purely commercial reasons, if permitted, would inevitably lead to an increase, rather than a decrease, in the taxonomic difficulties of the group concerned, through the selection, as "neotypes", of specimens belonging to species which would have been carefully avoided for such a purpose by any experienced and disinterested worker, in order (for example) to avoid the need for sinking in the synonymy the well-known name of one of the possible species, when the "neotype" could with equal ease have been attached to some other species, the sinking of the name of which as a synonym would have caused little or no confusion or inconvenience in the taxonomy of the group concerned.)

- (4) The "Code of Ethics" (*Declaration 1*<sup>16</sup>) was designed to secure that, so far as practicable, an author should not publish a substitute name for a genus or species, the name of which was invalid by reason of being a homonym, so long as the original author was still alive, until the author proposing to give the substitute name had notified the original author of the need for a new name and had given him ample opportunity himself to publish a substitute name. Is it proposed that the "Code of Ethics" should be extended to restrain an author from establishing a "neotype" for a species (or subspecies), the type of which was known to have been destroyed, until the original author of the specific (or sub-specific) trivial name in question had been given ample opportunity himself to select a "neotype" in cases where the original author is still alive?

The proposal that the establishment of "neotypes" should be permitted affects all systematic workers in every group of the Animal Kingdom and would apply to living species equally with fossil species. The far-reaching character of the proposal will be realised when it is noted that, if this proposal were to be adopted, it would be open to any person possessing, or having access to, material from the original localities, to establish "neotypes" for all the species established by Linnaeus and other early historical writers, except in the relatively small number of cases where the collections of those authors are still in existence.

In considering the proposal submitted to them, the International Commission would accordingly greatly welcome the views of specialists on the question of the probable effect, as regards their respective groups, of the incorporation in the International Code of a provision authorising the establishment of "neotypes". For example, is it considered that it would be helpful to the taxonomy of the groups concerned if it were permissible for any person to select "neotypes" for the species described by Linnaeus in the genus *Helix* Linnaeus, 1758 (Class Gastropoda), by Fabricius in 1775 for species in such genera as *Carabus* Linnaeus, 1758, *Ichneumon* Linnaeus, 1758, or *Musca* Linnaeus (Class Insecta), except for those species, the Linnean or Fabrician types of which are known to be in existence, or for the species described by Linnaeus in such genera as *Salmo* Linnaeus, 1758 (Class Actinopterygii), *Lacerta* Linnaeus, 1758 (Class Reptilia), or *Mus* Linnaeus, 1758 (Class Mammalia)?

In the "statement of the case" submitted to the International Com-

<sup>16</sup> See 1943, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1: 1-6.

mission in regard to "neotypes", an argument is advanced on the basis that Article 25 of the International Code provides that a name which satisfies the requirements of provisos (a) and (b) of that Article (such as the species *Fusulina elongata* Shumard, 1860, there referred to), "must be a valid name".<sup>17</sup> This interpretation of Article 25 is incorrect; that Article provides something quite different, namely that, in order to be valid, a name must satisfy the requirements of that Article. In other words, Article 25 is no more than the first test to be applied to a name; if it fails to satisfy that test, the name is invalid. If, however, the name satisfies the requirements of Article 25, it is necessary next to apply, in the case of a generic name, the test laid down in Article 34 and, in the case of a specific or subspecific name, the tests laid down in Articles 35 and 36. If the name passes successfully through these further tests, it is available nomenclatorially. It by no means follows that, even in that case, the name is a "valid name". Before a decision on that question can be taken, it is necessary for the worker concerned to take at least one, and sometimes two or more, subjective taxonomic decisions. In the case of a specific trivial name, he must first form his own conclusion as to the identity of the species to which that name applies; he may, second, have to form a similar subjective judgment regarding the identity of the species to which one or more other specific trivial names are respectively applicable. Only where the worker concerned is able to satisfy himself regarding the identity of the species to which the trivial name applies and where he satisfies himself that that trivial name is the oldest of any number of trivial names applied to that species, can the trivial name in question be said to be a "valid name". Even then, the trivial name in question is not "valid" absolutely but is only "valid" from the standpoint of the worker concerned. The name will not be "valid" from the standpoint of any other worker who forms a different subjective judgment regarding any of the taxonomic questions referred to above.

If, in a case such as that discussed above, the worker concerned is unable to satisfy himself regarding the identity of the species to which the trivial name in question is properly applicable, the trivial name, though available nomenclatorially, is a *nomen dubium* from the standpoint of the worker concerned and cannot properly be applied to any one of the (two or more) species known from the original locality.

The object of the proposal now under discussion is to provide the reviser in such a case with the means of converting a *nomen dubium* into a name, the precise meaning of which would be fully established, through the grant to the reviser of the right himself to select, as the "neotype" (in such a case, the "neoholotype") of the species concerned, a specimen of a species (i) taken in the type locality and (ii) corresponding with the original description.

<sup>17</sup> See page 107 above.

**ON THE STATUS OF THE GENERIC NAMES PUBLISHED BY BRISSON (M. J.),  
1762, *REGNUM ANIMALE***

By G. H. H. TATE.

*(Assistant Curator of South American Mammals, American Museum of Natural History,  
New York.)*

**(Commission's reference Z.N.(S.)124.)**

In *Opinion* 37 of the International Commission, the generic names in Brisson's *Ornithologia*, 1760, were accepted. The mammalian names published in Brisson's *Regnum Animale*, 1762, have never been ruled upon, so far as I am aware, by the International Commission. The work on mammals, however, is prepared in a manner essentially similar to that on birds. Consequently, by analogy the generic names of mammals therein proposed should be accepted. I request that this matter be placed upon the list of agenda of the Commission.

**PROPOSAL BY THE LATE COMMISSIONER C. W. STILES FOR THE ADDITION TO THE OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY OF CERTAIN NAMES PROPOSED BY BRISSON (M. J.), 1762, *REGNUM ANIMALE*, AND BY OKEN (L.), 1815-1816, *LEHRBUCH DER NATURGESCHICHTE***

By FRANCIS HEMMING, C.M.G., C.B.E.

*(Secretary to the International Commission on Zoological Nomenclature.)*

**(Commission's reference Z.N.(S.)177.)**

In February 1934 the late Commissioner C. W. Stiles proposed the addition to the *Official List of Generic Names in Zoology* of a long list of names of genera in the Order Carnivora (Class Mammalia). This list was taken from the manuscript of a paper enumerating the parasites for Carnivora. In making this proposal, Commissioner Stiles observed that over 250 of these parasites had also been reported for man and expressed the view that in consequence "it becomes important from a standpoint of public health to establish as firmly as possible the generic names of the animals which harbour these parasites". The paper from the manuscript of which these generic names were taken by Commissioner Stiles was published in December 1934 in *U.S. Nat. Inst. Health Bull.* 163 : 911-1223 (Stiles (C. W.) and Baker (C. E.), "Key-Catalogue of Parasites reported for Carnivora (Cats, Dogs, Bears, etc.) with their possible Public Health Importance").

2. The list of generic names submitted by Commissioner Stiles was considered by the International Commission at their Session held at Lisbon in September 1935 (Lisbon Session, 4th Meeting, Conclusion 16, for the text of which see 1943, *Bull. zool. Nomencl.* 1 : 41). The Commission then agreed that such of the names in question as had not been objected to by the specialists consulted should be placed on the *Official List of Generic Names in Zoology*. In accordance with this decision, the great majority of the generic names included in Commissioner Stiles's list have since been placed on the *Official List* in an *Opinion*, now awaiting publication.

3. Among the names proposed by Commissioner Stiles for inclusion in the *Official List* were certain names published by Brisson (M. J.), 1762, *Regnum*

*animale*, and by Oken (L.), 1815–1816, *Lehrbuch der Naturgeschichte*. The names in question were the following:—

(i) *Names proposed by Brisson :*

*Hyaena* Brisson, 1762, *Regn. anim.* (ed. alt.) : 168

*Lutra* Brisson, 1762, *ibid.* (ed. alt.) : 201

*Meles* Brisson, 1762, *ibid.* (ed. alt.) : 183

(ii) *Names proposed by Oken :*

*Genetta* Oken, 1816, *Lehrb. Naturgesch.* 3 (Zool.) (2) : 1010

*Grison* Oken, 1816, *ibid.* 3 (Zool.) (2) : 1000

*Tayra* Oken, 1816, *ibid.* 3 (Zool.) (2) : 1001

4. When Commissioner Stiles's list was under consideration, Commissioner Angel Cabrera expressed the view that the acceptance of generic names proposed by Brisson, 1762, *Regnum animale*, and by Oken, 1815–1816, *Lehrb. Naturgesch.* would be contrary to proviso (b) to Article 25, since, in his opinion, neither of these authors in the works concerned "had applied the principles of binary nomenclature"<sup>18</sup>. Commissioner Cabrera added, however, that "it would be good to see others' opinions about this".

5. In these circumstances, the six names enumerated in paragraph 3 above have not been included in the *Opinion* referred to above but have been deferred for further consideration. Commissioner Stiles's proposal that these names should be added to the *Official List of Generic Names in Zoology* will be reviewed, when decisions have been taken by the International Commission on the application submitted by Dr. G. H. H. Tate in regard to Brisson, 1762, *Regnum animale* (see page 112 above) and the application submitted by Dr. Wilfred H. Osgood in regard to Oken, 1815–1816, *Lehrb. Naturgesch.*, which will shortly be published in the present journal.

ON THE GENERIC NAMES PUBLISHED BY BRÜNNICH, 1772,  
*ZOOLOGIAE FUNDAMENTA*

By R. WINCKWORTH.

(London.)

(Commission's reference Z.N.(S.)151.)

I hereby apply to the International Commission for an *Opinion* on the status of the generic names of Brünnich, 1772, *Zoologiae Fundamenta*, in particular asking that *Tonna* Brünnich, 1772 (Class Gastropoda, Order Mesogastropoda) should be placed on the *Official List of Generic Names in Zoology* with *Buccinum galea* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 734, as type.

The title page of this book reads: "M. TH. BRÜNNICHII ZOOLOGIAE FUNDAMENTA . . . GRUNDE I DYRELÆREN. Hafniae et Lipsiae. MDCCLXXII". The book, an octavo of 254 pages, is written throughout in Latin (left-hand pages) with a Danish translation (right-hand pages). In the Danish version the generic names are vernacular; thus "*Ceratodon*" corresponds to "Narhval". The new genera in this work require consideration as, although the author closely follows the Linnean system, and even keeps much of the wording of the 10th and 12th editions of the *Systema Naturae* (1767), no specific names are given, since the object of the book is to give a survey of the Animal Kingdom with tables of all the genera. Brünnich remarks in the preface: "Enumeratio specierum nimis foret proluxa".

As an example of Brünnich's method I give a facsimile of page 246, in which

<sup>18</sup> See pp. 98–101 above.

*Molluscum,*

Testaceum,

Univalve,

Multiloculare,

Siphone interiori communicans,

Spirale rotundatum - - - NAUTILUS.

Elongatum rectiusculum - - - ORTHOCEROS.

Siphone exteriori communicans - - - AMMONIA.

Uniloculare,

Spirale,

Apertura integra,

Dilatata,

Testa cymbiformis,

Spira involuta occulta - - - ARGONAUTA.

Testa auriformis,

Spira lateralis occulta - - - HALIOTIS.

Coarctata,

Orbicularis - - - - - TURBO.

Tetragono-rotundata - - - TROCHUS.

Lunaris - - - - - HELIX.

Semiorbicularis - - - - - NERITA.

Longitudinaliter oblonga,

● Columella laevis v. plicata - - - BULLA.

Apertura effusa,

Coarctata,

Linearis,

Columella laevis - - - CONUS.

Columella plicata - - - VOLUTA.

Columella &amp; labrum multiden-

tata - - - CYPRÆA.

*Mollu.*

it may be noted that the descriptions there given correspond very closely with the descriptions of the same genera in Linnaeus, 1758, *Syst. Nat.* (ed. 10) and 1767, *Syst. Nat.* (ed. 12) 1 (2).

I have stressed the close adherence to the wording of the *Systema Naturae* of Linnaeus (Brünnich was clearly acquainted with both the tenth and the twelfth editions), because, when that is recognised, the new genera can be directly interpreted from the *Systema*; on that understanding species available as types can be listed.

Among authors mentioned by Brünnich, Brisson and Pallas are given in the chapters on Mammata and Aves; "Pallas 1766" is again given as an author on Zoophyta; in the chapter on Insecta "ingeniosus Geoffroy" follows "Systematicorum princeps C. de Linné". Of fifteen of the genera not found in Linnaeus, the authorship appears to be attributable as follows:—

(i) Mammata

To Brisson, 1762:—*Lutra*, *Hyaena*, *Giraffa*, *Tapirus*, *Ceratodon*.

To Pallas, 1766:—*Antilope*.

(ii) Aves

To Brisson, 1760:—*Torquilla*, *Galbula*, *Momotus*, *Colius*, *Ficedula*.

To Pallas, 1768:—*Xanthornus*.

(iii) Insecta

*Cryptocephala* from the errata on page 254 seems to be a lapse for *Cryptocephalus* Geoffroy, 1762.

(iv) Zoophyta

To Pallas, 1766:—*Antipathes*, *Brachionus*.

There remain the following nine genera which must be regarded as new:—

- (1) *Manatus* and (2) *Rosmarus* (: 38, also listed : 34). These correspond to the species *Trichechus manatus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 34, and *Trichechus rosmarus* Linnaeus, 1766, *Syst. Nat.* (ed. 12) 1 : 49 respectively. In *Opinion* 112 suspension of the rules was declined for *Manatus* Brünnich, 1772, versus *Trichechus* Linnaeus, 1758, respectively, but the status of *Manatus* Brünnich was not questioned.
- (3) *Cercopithecus* (: 40, also listed : 34). The table separates *Cercopithecus* "cauda elongata" from *Simia* "cauda abrupta vel nulla", so that the name is equivalent to Linnaeus' section of *Simia* "Cauda elongata. Cercopithecii". Sherborn gives *Cercopithecus* Gronovius, 1763, but the *Zoophylacium* of Gronovius (1763) has been suppressed by the International Commission under their plenary powers in *Opinion* 89. Quite apart from this, Brünnich did not refer to Gronovius in this chapter and the name *Cercopithecus* must, therefore, be regarded as a new proposal by Brünnich. *Opinion* 104 places *Cercopithecus* on the *Official List* as from Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 26, with *Simia diana* Linnaeus, 1758, as type. This decision, however, requires reconsideration in view of *Opinion* 124, which does not recognise the names of subdivisions published by Linnaeus, 1758, as being of sub-generic status as of that date, and also the recent *Opinion* 183,<sup>19</sup> by which generic names published in the plural have no status until republished in the nominative singular.
- (4) *Hydrochaeris* (: 44, also listed : 36) appears to be an emendation of *Hydrochoerus* Brisson, 1762, *Regn. anim.* : 80, and to refer to *Sus hydrochaeris* Linnaeus, 1766, *Syst. Nat.* (ed. 12) 1 : 103.

<sup>19</sup> For an explanation regarding the present position of the name *Cercopithecus* in relation to the *Official List* will be published in an early Part of this journal, together with certain proposals in regard to that name.

- (5) *Xiphosura* ( : 208, also listed as *Xiphisura* : 184), clearly intended for *Monoculus polyphemus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 634, for which species "*Xiphosura* Gronovius" is quoted by Linnaeus in 1767 (*Syst. Nat.* (ed. 12) 1 (2) : 1057). By *Opinion* 104, *Limulus* Müller, 1785, has been placed on the *Official List* with the same species as type. That decision will need to be re-examined in the light of whatever decision may be taken by the International Commission in regard to Brünnich, 1772.
- (6) *Orthoceros* and (7) *Ammonia* ( : 246, also listed : 232) are separated from *Nautilus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 709. *Orthoceros* "Elongatum, rectiusculum" is equivalent to the Linnean subdivision "Elongati, erectiusculi" of *Nautilus*, which includes *Nautilus raphanus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 711 (the type of *Orthocera* Lamarck, 1799, *Mém. Soc. Hist. nat. Paris* 1799 : 80) and *Nautilus orthocera* Linnaeus, 1758 ( : 711), a fossil, and other species.

*Ammonia* "Siphone exteriori communicans" can be interpreted from the pre-Linnean Gualtieri, 1742 (referred to by Brünnich and frequently cited by Linnaeus). Plate 19 of Gualtieri's *Index Testarum* figures three genera of Polythalamia; these are referred to in the legend as (i) *Nautilus*, (ii) *Ammonia*, which includes figures of *Nautilus spirula* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 710, and *Nautilus beccarii* Linnaeus, 1758, *ibid.* (ed. 10) 1 : 710, and (iii) *Orthocera*.

The case of *Ammonia* is a difficult one. If *N. spirula* Linnaeus were to be taken as the type of this genus, the name *Ammonia* Brünnich would antedate *Spirula* Lamarck, 1799, *Mém. Soc. Hist. nat. Paris* 1799 : 80. In that event, the name should be suppressed by the International Commission under their plenary powers, since the replacement of *Spirula* Lamarck in this way would clearly result in greater confusion than uniformity. On the other hand, it is possible that workers in Foraminifera would see no objection to the designation of *N. beccarii* Linnaeus as the type of *Ammonia* Brünnich.

As regards *Orthoceros*, the type must be one of the species numbered 240-249 in the section "Elongati erectiusculi" of the genus *Nautilus* Linnaeus, 1758. I do not think that *Nautilus orthocera* Linnaeus, 1758 (sp. no. 249) should be regarded as the type by absolute tautonymy, for Brünnich's work is not concerned with fossils.

- (8) *Tonna* and (9) *Cassida* ( : 248, also listed : 232) are separated from *Buccinum* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 734. Reference to pages 734 and 735 of the 10th edition shows that these new genera correspond to the first two subdivisions, "Ampullacea" and "Cassidea", of the genus *Buccinum* Linnaeus, as defined in that edition.

*Tonna* Brünnich, however, is used by many authors for *Dolium* Lamarck, 1801, *Syst. Anim. sans Vert.* : 79, e.g. by Dall, 1909, *Prof. Pap. U.S. geol. Surv.* 59 : 71; by Suter, 1913, *Manual N.Z. Moll.* : 314, where *Buccinum galea* Linnaeus, 1758, is designated as type of *Tonna* Brünnich; and by Hedley, 1919, *Rec. Aust. Mus.* 12 : 329. As already stated, I recommend that the name *Tonna* Brünnich (type : *Buccinum galea* Linnaeus, 1758) be added to the *Official List of Generic Names in Zoology*. If the name *Tonna* Brünnich were to be rejected, the next available name would be *Cadus* Röding, 1798, *Mus. Bolten.* (2) : 150 (type : *Buccinum perdriz* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 734, so designated by Woodring, 1928, *Carnegie Inst.*, Wash. 385 : 311 ("Miocene Mollusks from Bowden, Jamaica, Part 2")).

*Cassida* Brünnich, 1772, is pre-occupied by *Cassida* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 362.

**ON THE QUESTION WHETHER GENERIC NAMES PUBLISHED BY GEOFFROY (E. L.), 1762, *HISTOIRE ABREGÉE DES INSECTES QUI SE TROUVENT AUX ENVIRONS DE PARIS*, ARE AVAILABLE UNDER PROVISIO (b) TO ARTICLE 25 OF THE INTERNATIONAL CODE**

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature.)

(Commission's reference Z.N.(S.)168.)

In an application to the International Commission for a decision regarding the status and type of the generic name *Corixa* Geoffroy, 1762 (Order Hemiptera),<sup>20</sup> Professor H. B. Hungerford inevitably raises also the much broader question of the status, whether binary or otherwise, of Geoffroy (E. L.), 1762, *Histoire abrégée des Insectes qui se trouvent aux environs de Paris*.

The above work, as is well known, deals with all the principal Orders of insects. Its status must, therefore, be treated as a general entomological problem and not one of special interest to the specialists of a single Order.

As I have explained elsewhere, the whole question of what constitutes, and what should constitute, the meaning properly applicable to the expression "*nomenclature binaire*" is at present the subject of a special inquiry undertaken by the International Commission at the request of the Twelfth International Congress of Zoology (Lisbon, 1935).

The note referred to above contains an appeal made on behalf of the Executive Committee of the International Commission to specialists to assist the Commission in their inquiry by furnishing them with factual material regarding (i) the extent to which generic names first published in works employing a system of nomenclature not strictly binominal in character are at present commonly used in the systematic literature of the groups concerned and (ii) the extent to which changes in current nomenclature, whether involving confusion or not, would result (a) from the definite acceptance of generic names published in such works or (b) from their definite rejection.

The full text of the appeal referred to above will be found on pages 98-101 of the present volume. Specialists in all Orders of insects affected are particularly requested to assist the International Commission by furnishing them with statements showing the position, as respects their own speciality, which would arise from (i) the acceptance and (ii) the rejection of the generic names first published in Geoffroy, 1762, *Hist. abreg. Ins. Paris*.

**PROPOSAL THAT THE PAMPHLET ENTITLED "BUPRESTIDAE" PRIVATELY AND ANONYMOUSLY ISSUED BY HOPE (F. W.) IN 1836 SHOULD BE SUPPRESSED FOR NOMENCLATORIAL PURPOSES**

By the late H. J. CARTER, B.A.

(Commission's reference Z.N.(S.)57.)

I am sending you a photographic copy<sup>21</sup> of a paper entitled "*Buprestidae*" privately issued by Hope in 1836. This paper aroused some stir in 1867 (see

<sup>20</sup> The application here referred to will be published in an early Part of this journal.

<sup>21</sup> Not reproduced.

[1868], *Proc. ent. Soc. Lond.* (3) 5 : cix-cx). There is a reference to it also by Edward Saunders in 1868, *Trans. ent. Soc. Lond.* 1868 : 1-67.

These references make it possible to estimate the trouble that is arising in systematic entomology through the publications by Dr. Jan Obenberger of Prague on the family BUPRESTIDAE.

The object of this appeal is to call attention to the confusion arising from the recognition by Dr. Obenberger of the validity of the names contained in Hope's pamphlet, in spite of the fact that it has been repudiated by authors in this group ever since 1868, on the ground that it was not published in a true sense.

I have already protested elsewhere (1934, *Ann. Mag. nat. Hist.* (10) 14 : 551, 553) against the recognition of this pamphlet. Is it possible to prevent further recognition of it? The genus *Stigmodera* Eschscholtz, 1829, *Zool. Atlas* 1 : 9, for example, contains some 400 species. When, therefore, a large number of obsolete names are revived as the result of the publication of a Catalogue of the BUPRESTIDAE, further serious confusion arises.

### ON THE PAMPHLET "BUPRESTIDAE" ANONYMOUSLY ISSUED BY HOPE (F. W.) IN 1836

By KARL JORDAN, Ph.D., F.R.S.

(British Museum (Natural History), The Zoological Museum, Tring.)

(Commission's reference Z.N.(S).57.)

According to what critics have said, the 13-page pamphlet "Buprestidae" is not a publication, but a privately printed and privately distributed list. It has no title-page, no author's name, no price.

Hagen, 1862, *Bibl. entom.* 1 : 379, has the entry :—"Buprestidae. (1836). 8. pg. 13. (nicht publicirt, Bibl. Hope)."

The Secretary to the Entomological Society of London (either J. W. Dunning or David Sharpe, who were joint Secretaries at the time, but more probably the latter) criticised the pamphlet "Buprestidae" at a meeting of the Society held on 6th January 1868 (1868, *Proc. ent. Soc. Lond.* (3) 5 : cix-cx). The following is an extract from the criticism there advanced :—

The paper in question consists of thirteen pages, at the top of which is the word "Buprestidae"; this is the only title it bears. There is no title-page, preface, introduction or explanation whatsoever; no author's name, no printer's name, no date; no name of any bookseller or of any other place at which the public might obtain it; and as to many of the insects described, there is nothing to show that they are Australian species, or to point out the collections in which the type-specimens were deposited. . . . I submit that the unpublished names of the anonymous print "Buprestidae" must give way to published names, whatever the date of the latter may be.

In the *Transactions of the Entomological Society of London* for 1868 ( : 1-67), where Edw. Saunders published a revision of the Australian BUPRESTIDAE, Saunders said in a footnote ( : 2) :—"I have abandoned the names of the unpublished tract 'Buprestidae' in favour of published names, though later in point of date."

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- The implications of Dr. Jacot's proposal for the amendment of Article 22 of the International Code. By Francis Hemming, C.M.G., C.B.E., *Secretary to the International Commission on Zoological Nomenclature* . . . . . p. 90
- On the interpretation of Article 23 of the International Code in relation to the use of brackets when citing the name of an author of a subspecific trivial name when that name appears in conjunction with the same generic name but not in the same relationship thereto as when originally published. By R. Chester Hughes, *Department of Zoology, Oklahoma Agricultural and Mechanical College, School of Arts and Sciences, Stillwater, Oklahoma* . . . . . p. 91
- On the interpretation of Article 23 of the International Code in cases where a species is originally described as being both in a genus and in a subgenus and later the subgenus is elevated to generic rank and the species is transferred to the genus so erected. By C. F. W. Muesebeck, *Officer in Charge, Division of Insect Identification, United States Department of Agriculture, Bureau of Entomology and Plant Quarantine, Washington, D.C.* . . . . . p. 92
- Proposal to delete Article 23 from the International Code. *Resolution adopted by the American Malacological Union* . . . . . p. 93
- On the question whether a generic, or a specific, name based upon the work of an animal but not on the animal itself has any standing under Article 25 of the International Code. By J. Chester Bradley, *Professor of Entomology and Curator of Invertebrate Zoology, New York State College of Agriculture at Cornell University, Cornell University Agricultural Experiment Station, Ithaca, N.Y.* . . . . . p. 93
- On the status, under Article 25 of the International Code, of generic names where the genera concerned are founded upon figures only. By Harald A. Rehder, *Assistant Curator, Division of Mollusks, Smithsonian Institution, United States National Museum, Washington, D.C.* . . . . . p. 94
- On the problem raised by Dr. Harald A. Rehder regarding the status of generic names where the genera concerned are founded upon figures only. By Francis Hemming, C.M.G., C.B.E., *Secretary to the International Commission on Zoological Nomenclature* . . . . . p. 95
- On the interpretation of Article 25 of the International Code in relation to the author to whom should be attributed a specific or subspecific trivial name originally published conditionally: case of *Halictus morbillosus aegyptiellus* (Class Insecta, Order Hymenoptera). By T. D. A. Cockerell, *University of Colorado, Boulder, Col.* . . . . . p. 97
- On the status, under Article 25 of the International Code, of the names of species of parasites published, prior to 1st January 1931, with no description, definition, or indication other than the name of the host. By Karl Jordan, Ph.D., F.R.S., *British Museum (Natural History), The Zoological Museum, Tring* . . . . . p. 97
- The procedure proposed to be adopted by the International Commission on Zoological Nomenclature in preparing the Report asked for by the Twelfth International Congress of Zoology in regard to the meaning to be attached to the expression "*nomenclature binaire*" in the International Code of Zoological Nomenclature and on matters incidental thereto. By Francis Hemming, C.M.G., C.B.E., *Secretary to the International Commission on Zoological Nomenclature* . . . . . p. 98

- On the meaning to be attached to the expression "*le plus anciennement désigné*" used in Article 25 of the International Code, with special reference to the case of *Ophiotaenia ranarum* Iwata and Matuda, 1938, and *Ophiotaenia ranae* Yamaguti, 1938 (Class Cestoidea, Order Tetraphyllidea). By Satyu Yamaguti, M.D., *Lecturer in Parasitology, Kyoto Imperial University, Japan* . . . . . p. 102
- On the status, under Article 25 of the International Code, of specific names published with descriptions but without comparison with allied species. By H. B. Hungerford, *Department of Entomology, University of Kansas, Lawrence, Kansas* . . . . . p. 102
- On the interpretation of Article 34 of the International Code in relation to a generic name identical with a name previously published for a genus in the Animal Kingdom, where that genus has been transferred to the Vegetable Kingdom in accordance with Article 1 of the International Code. By Francis Hemming, C.M.G., C.B.E., *Secretary to the International Commission on Zoological Nomenclature* . . . . . p. 103
- On the question of recognising "neotypes". By Don L. Frizzell and Harry E. Wheeler, *Stanford University, California* . . . . . p. 106
- On the proposal that the International Code should be amended to provide for the establishment of "neotypes". By Francis Hemming, C.M.G., C.B.E., *Secretary to the International Commission on Zoological Nomenclature* . . . . . p. 108
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- On the question whether generic names published by Geoffroy (E. L.), 1762, *Histoire abrégée des Insectes qui se trouvent aux environs de Paris*, are available under proviso (b) to Article 25 of the International Code. By Francis Hemming, C.M.G., C.B.E., *Secretary to the International Commission on Zoological Nomenclature* . . . . . p. 117
- Proposal that the pamphlet entitled "BUPRESTIDAE" privately and anonymously issued by Hope (F. W.) in 1836 should be suppressed for nomenclatorial purposes. By the late H. J. Carter, B.A. . . . . p. 117
- On the pamphlet "BUPRESTIDAE" anonymously issued by Hope (F. W.) in 1836. By Karl Jordan, Ph.D., F.R.S., *British Museum (Natural History), The Zoological Museum, Tring* . . . . . p. 118

## OPINIONS AND DECLARATIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

The above work, which is obtainable from the Publications Office of the International Commission at 41, Queen's Gate, London, S.W.7, is being published concurrently in three volumes of which the following Parts have so far been published :—

- VOLUME 1, Parts 1-20 (containing *Declarations* 1-9 and re-issues of *Opinions* 1-11). When complete this Volume will contain all the pre-Lisbon *Opinions*.
- VOLUME 2, Parts 1-35 (containing *Declarations* 10-12 and *Opinions* 134-165). When complete, this Volume will contain all the *Opinions* adopted by the International Commission at Lisbon in 1935.
- VOLUME 3, Parts 1-8 (containing *Opinions* 182-189). The *Opinions* adopted by the International Commission since their Lisbon meeting are being published in this Volume.